

Remarks

I. Status of the Application

Claims 1-106 are pending in the application. Claims 7-9, 15, 54-58, 62 and 68 are amended. Claims 1-6, 22-53 and 69-94 are cancelled. Claims 95-106 are added.

II. Drawings

The drawings have been objected to under 37 CFR 1.83(a) for allegedly not showing every feature of the invention specified in the claims. The Examiner alleged that features of independent claims 7 and 54 are not shown in the drawings.

Claims 7 and 54 have been amended as indicated above. Figs. 4A-4C and Figs. 6A-6D have also been amended and now show each limitation of amended claims 7 and 54. Annotated marked up drawings for Figs. 4A-4C and 6A-6D (labeled “Annotated Sheets”) are enclosed. Replacement drawings for Figs. 4A-4C and 6A-6D (labeled “Replacement Sheets”) are also enclosed.

Several of the drawings have been objected to for allegedly containing extraneous markings. Replacement drawings for all of the Figures 1-9 (labeled “Replacement Sheets”) are enclosed herewith. The replacement drawings do not contain any extraneous markings.

Figures 4C and 6A-6D have been objected to because they contain unlabeled direction arrows. In the replacement drawings, Figs. 4A-4C and Figs. 6A-6D have been amended. In particular, the direction arrows in Figs. 4A-4C and in Figs. 6A-6D have been labeled. The direction arrow to the left of the “cache 340” is labeled “transmit to cache 325.” The direction arrow to the right of the “cache 340” is labeled “flush to disk 245.” Support for these

amendments is found at page 10, line 21 to page 11, line 20, for example. No new matter has been added by these amendments.

It is also noted that in Fig. 4A, as originally filed, the direction arrow to the left of the “cache 340” was labeled with a reference number “325,” and the direction arrow to the right of the “cache 340” was labeled with a reference number “245.” In the amended figures, these reference numbers have been added to each of Figs. 4B-4C and 6A-6D, as well. Each of Figs. 4B-4C and 6A-6D depicts the cache 340; therefore, no new matter has been added by these amendments.

III. Title

The title of the application has been objected to for allegedly being insufficiently descriptive of the claimed invention. The title has been amended as indicated above.

IV. Specification and Claims

The specification has been objected to for allegedly failing to provide proper antecedent basis for the claimed subject matter. In particular, the Office Action refers repeatedly to the term “recorded” as used in the claims, and asserts that there is insufficient support for such term. The claims have been amended to conform to the language in the specification. For example, the language “record” data means to store data in a storage device.

Claims 7-9, 54-58, 62 and 68 are amended as indicated above. In amended claim 7, for example, the term “recorded” has been replaced by “transmitted to at least one storage device prior to performing a data processing operation.” The term “recording” has been

replaced by “transmitting to the at least one storage device.” Claim 54 has been amended in a similar manner. Support for these amendments is found at pages 12-14, for example.

System claims 54-58 and 62 have also been amended to replace the language “a cache for” by “ a cache configured to,” and the language “a controller for” by “ a controller configured to,” to avoid any inference that the limitations should be interpreted as means-plus-function limitations. These amendments broaden the scope of the claims.

The specification is objected to because the reference to patent application 10/052,208 should be updated to reflect that the application has been allowed. Page 10 of the specification has been amended, as indicated above.

In addition, the paragraph in the specification beginning at page 10, line 21 has been amended to clarify the significance of the direction arrows shown in Figs. 4A-4C and 6A-6D. This amendment corresponds to the amendment to Figs. 4A-4C and 6A-6D, discussed above. As discussed above, support for this amendment is located at page 10, line 21 to page 11, line 20, for example. Non new matter is added by this amendment.

V. Claim Rejections - 35 USC § 112

Claims 7-21 have been rejected under 35 U.S.C. 112 because the specification is allegedly not enabling with respect to these claims. Claims 7-9 have been amended as shown above. In amended claim 7, for example, the term “recorded” has been replaced by “transmitted to at least one storage device prior to performing a data processing operation.” The term “recording” has been replaced by “transmitting to the at least one storage device.” Support for these amendments is found at pages 12-14, for example. The specification provides enablement for claims 7-21, as amended.

Claims 54-68 have also been rejected under 35 U.S.C. 112 because the specification is allegedly not enabling with respect to these claims. Claims 54-58, 62 and 68 have been amended as shown above (and as suggested in the Office Action). As stated in the Office Action, the specification provides enablement for claims 7-21, as amended.

VI. New claims 95-100

New claim 95 depends from amended claim 7 and further requires “performing the data processing operation.” New claim 96 depends from amended claim 7 and further recites “wherein the data processing operation comprises performing a snapshot of data stored in the storage system.” New claim 97 depends from amended claim 7 and further requires “transmitting the one or more of the data items to the at least one storage device.” Support for new claims 95-97 is found at page 12-14, for example.

New claim 98 depends from amended claim 54 and recites “wherein the controller is further configured to perform the data processing operation.” New claim 99 depends from amended claim 54 and recites “wherein the data processing operation comprises performing a snapshot of data stored in the storage system.” New claim 100 depends from amended claim 54 and recites “wherein the controller is further configured to transmit the one or more of the data items to the at least one storage device.” Support for new claims 95-97 is found at page 12-14, for example.

New independent claim 101 provides a method for storing data in a storage system, and requires “receiving data items by the cache,” and “inserting a marker into the cache, wherein the marker is an indication that one or more of the data items received by the cache are to be flushed from the cache prior to performing a data processing operation.” New claim

101 further requires “flushing from the cache the one or more of the data items.” Support for new claim 101 is found at page 12-14, for example.

New claim 102 depends from claim 101, and further requires “flushing the marker from the cache,” and “performing the data processing operation when it is determined that the marker has been flushed from the cache.” New claim 103 depends from claim 102 and additionally recites “wherein performing the data processing operation comprises performing a snapshot of data stored in the storage system.” Support for new claims 102-103 is found at page 12-14, for example.

New independent claim 104 describes a system for storing data in a storage system. The system comprises a cache configured to “receive data items.” The system also comprises a controller configured to “insert a marker into the cache, wherein the marker is an indication that one or more of the data items received by the cache are to be flushed from the cache prior to performing a data processing operation,” and “cause the one or more of the data items to be flushed from the cache.” Support for new claim 104 is found at page 12-14, for example.

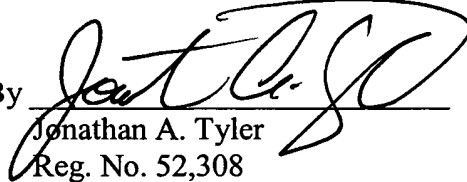
New claim 105 depends from claim 104 and further recites “wherein the controller is further configured to flush the marker from the cache, and perform the data processing operation when it is determined that the marker has been flushed from the cache.” New claim 106 depends from claim 106, and requires that the controller be configured to “perform a snapshot of data stored in the storage system when it is determined that the marker has been flushed from the cache.” Support for new claims 105-106 is found at page 12-14, for example.

VII. Conclusion

In view of the foregoing, each of claims 7-21, 54-68, and 95-102, as amended, is believed to be in condition for allowance. Accordingly, reconsideration of these claims is requested and allowance of the application is earnestly solicited.

Respectfully submitted,
Kaye Scholer LLP

By

A handwritten signature in black ink, appearing to read "Jonathan A. Tyler", is written over a horizontal line.

Jonathan A. Tyler
Reg. No. 52,308
212-836-7071

Date: August 10, 2006



ANNOTATED SHEET

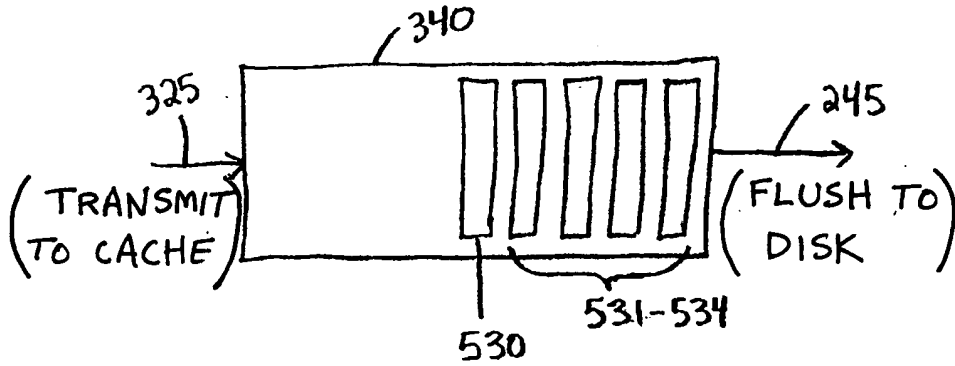


Fig. 4A (Prior Art)

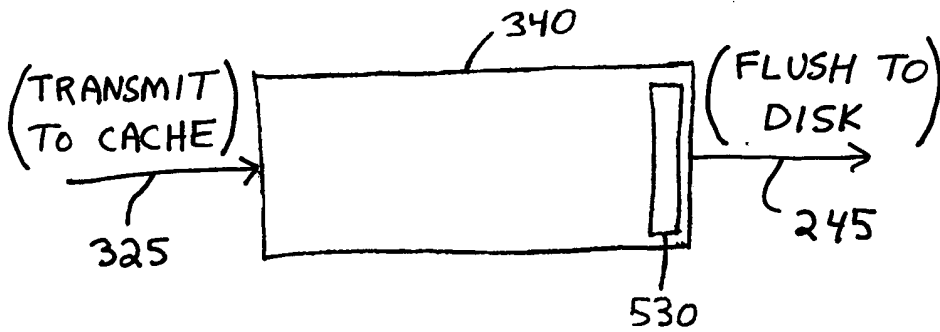


Fig. 4B (Prior Art)

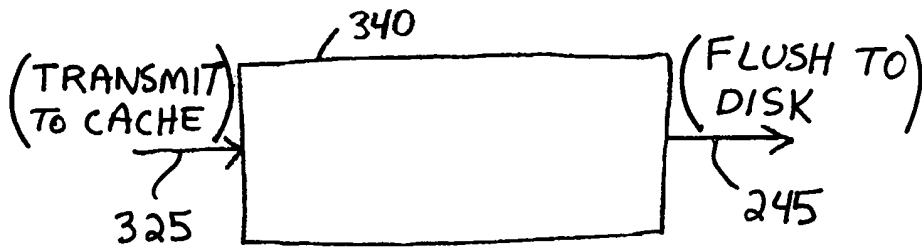


Fig. 4C (Prior Art)

ANNOTATED SHEET

